PARSONS

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May 23, 2022

Mr. Ricky Vargas
Project Manager
Land and Redevelopment Programs Branch
Land, Chemicals and Redevelopment Division
United States Environmental Protection Agency, Region 2
290 Broadway, 25th Floor
New York, New York 10007

Subject: ***Notification of Planned Physical Alteration to the Facility – Central Yard Biodiesel Project***
Former Chevron Perth Amboy Facility, Perth Amboy, New Jersey
EPA ID No. NJD081982902

Dear Mr. Vargas,

Pursuant to Module I, Section F.11. of the Hazardous and Solid Waste Amendments (HSWA) Permit Renewal effective September 3, 2013, for the former Chevron Facility located at 1200 State Street in Perth Amboy, New Jersey (Facility), and in accordance with 40 Code of Federal Regulations (CFR) 270.30(1)(1), Chevron Environmental Management and Real Estate Company (Chevron) formally gives notice to the United States Environmental Protection Agency (USEPA) of the planned physical alteration to the Facility described below. The alterations to the Facility will be completed by Buckeye Perth Amboy Terminal, L.L.C. (Buckeye), the current Facility owner.

Planned Alterations

Buckeye plans to install additional infrastructure to support biodiesel storage at the Facility. Activities include pump upgrades, a new hot water heating system, tank heat exchangers, electrical heat tracing, tank/piping insulation, and additional rail car staging, as discussed below and detailed in a letter to Chevron from Buckeye that is included as Attachment 1. Through prior coordination between Buckeye and Chevron, Chevron has abandoned the monitoring wells in the construction area.

Project Scope

Rail Car Offloading

For rail car offloading, Buckeye plans to construct two additional storage tracks and a track extension to store and stage rail cars. Above-ground piping will be electrically heat traced, and the supports will be insulated. Additionally, an elevated 8-inch offload line will be installed to the Central Yard manifold. The locations of these features are shown on Figure 1.

Hot Water Heating System / Electric Tank Heat Exchangers

Two new hot water heating units will be installed to support the heating load. Equipment included in this installation will be a new 6,300-gallon insulated hot water expansion tank and a 30 foot wide x 40 foot long x 16 foot tall building to house the hot water heating units and associated equipment (Figure 1).

Regulatory Background of AOCs and SWMUs Overlapping Proposed Work Areas

Two units overlap the proposed work areas (Area of Concern [AOC] 36 and Solid Waste Management Unit [SWMU] 34). Both were investigated from 1995 to 1998 during the 1st Phase Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) for soil and groundwater and further characterized during the full RFI (Chevron 2003). Chevron subsequently submitted a Supplemental RFI Report (Chevron 2008a) and Corrective Measures Study (CMS) (Chevron 2008b) to the USEPA and New Jersey Department of Environmental Protection (NJDEP). . The HSWA Permit contains corrective action requirements pursuant to HSWA Section 3004(u). USEPA issued a final HSWA Permit renewal (USEPA ID No. NJD081982902) and modification for the Facility with an effective date of September 3, 2013.

AOC 36

The corrective measures (CMs) listed in the HSWA permit for AOC 36 are: 1) enhanced in-situ bioremediation (EISB) including bioaugmentation for 1,1-dichloroethylene (DCE) and trichloroethylene (TCE) greater than 100 micrograms per liter (µg/L) in on-site groundwater; 2) in-situ geochemical stabilization for arsenic in groundwater at concentrations >60 µg/L using direct injection and/or a reactive barrier wall; and 3) monitored natural attenuation (MNA) and filing a Classification Exception Area (CEA) for groundwater constituent concentrations above groundwater quality standards (GWQS).

As discussed in the EISB Final Design Report (FDR) (Chevron 2012), which was approved by the USEPA and NJDEP on April 28, 2014, Chevron selected EISB as the initial CM for the on-site portion of the chlorinated volatile organic compound (CVOC) groundwater plume at AOC 36. EISB will be followed by MNA. MNA was the CM selected for the off-site portion of the AOC 36 CVOC groundwater plume. MNA is also the planned CM for the on-site portion of AOC 36 after CVOC concentrations in the EISB treatment areas have been reduced to below the remedial objectives identified for the EISB CM.

Justification for a No Further Action (NFA) determination for arsenic in AOC 36 groundwater was submitted to USEPA and NJDEP for review on March 18, 2020 (Chevron 2020). USEPA and NJDEP issued an NFA justification approval and comments in a letter dated June 29, 2021 (USEPA 2021).

SWMU 34

The HSWA permit lists the following CMs for SWMU 34: 1) excavation, ex-situ stabilization (ESS) and disposal in Corrective Action Management Unit (CAMU) for Toxicity Characteristic Leaching Procedure (TCLP) lead levels >5 µg/L and benzo(a)pyrene (BaP) concentrations >10 milligrams per kilogram (mg/kg) in soil; 2) in-situ stabilization (ISS) for TCLP lead levels <5 mg/L and lead levels >800 mg/kg in soil, as well as lead concentrations >50 µg/L in groundwater, and filing a deed notice afterwards; 3) containment consisting of constructing a cap and filing a deed notice afterwards for arsenic concentrations >20 mg/kg in surface soil; 4) filing a deed notice for soils with BaP concentrations <10 mg/kg and >0.66 mg/kg; and 5) MNA and filing a CEA for groundwater.

In October 2013, Chevron submitted a Facility Alteration Notification letter to USEPA describing Buckeye's proposed redevelopment plan, which included a ladder track system in the southern portion of the Facility's Central Yard. It was originally anticipated that Buckeye would remove portions of the ladder track system in the future to allow the ISS and ESS CMs to be implemented at SWMU 34 as required by the HSWA Permit. After discussions with and approval by USEPA and NJDEP, Chevron agreed to install a subsurface permeable reactive

barrier (PRB) wall as an interim measure to mitigate the migration of potential lead impacts in groundwater from SWMU 34.

Buckeye subsequently constructed a ladder track system as described in the SWMU 34 Corrective Measures Implementation Workplan, Revision 1 (Chevron 2018), which was approved by USEPA on June 12, 2019. This system consists of the sub-ballast, ballast, railroad tracks, and associated infrastructure, constructed over the existing ground surface in SWMU 34. This serves as a cap (i.e., physical barrier) to limit the potential for dermal exposure to and migration of the underlying impacted soil . The CM proposed in the SWMU 34 Corrective Measures Implementation Workplan, Revision 1, includes designating the ladder track system installed over top of the original ground surface as a cap for lead and arsenic. A deed notice will be established for lead impacts in soil above 800 mg/kg, BaP impacts in soil above 0.66 mg/kg, and arsenic impacts in surface soil above 20 mg/kg.

Planned Alterations for AOC 36 and SWMU 34

AOC 36

AOC 36 overlaps with the proposed biodiesel project as depicted in Figure 1. Based on the limits of disturbance outlined on Figure 1, Buckeye's proposed biodiesel project would not impact the ability to continue MNA and would not prevent any required additional in-situ treatments in AOC 36. However, based on the limits of disturbance on Figure 1, six monitoring wells located within AOC 36 (MW-185, MW-515, MW-517, MW-519, MW-531, and MW-532) need to be abandoned because their integrity cannot be preserved during the proposed construction activity.

A subsequent evaluation of these monitoring wells has established that Chevron will only need to reinstall three of the six wells, using the rationale discussed below.

- MW-517

  Monitoring well MW-517 is shallow (screened from 10 to 15 feet below ground surface [bgs]). Concentrations of CVOCs including DCE, TCE, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA) and perchloroethylene (PCE) were historically present in concentrations above NJDEP Class II-A GWQS in this well. As of 2021, only concentrations of vinyl chloride were above GWQS. This well is therefore demonstrating attenuation and is useful in evaluating MNA efficacy in this area. This well is also important for continued monitoring due to its proximity to the property boundary.

- MW-531 and MW-532

  Monitoring wells MW-531 and MW-532 are shallow wells installed between 2017 and 2018 to enhance delineation of the CVOC plume and evaluate groundwater geochemistry upgradient of the property boundary treatment area. Concentrations of VOCs exceeding the GWQS have been identified in these wells, and further monitoring is necessary to evaluate MNA in the vicinity of the on-site AOC 36 plume.

The monitoring well evaluation also established that three of the wells will not need to be reinstalled using the following rationale:

- MW-185

  Monitoring well MW-185 is also a deep well, historically not impacted by VOCs. The ongoing MNA evaluations will not be impacted if this well is not reinstalled.

- MW-515

  Monitoring well MW-515 is a deep well, historically not impacted by VOCs. Furthermore, MW-514 shares the same screen interval and is proximal and downgradient of MW-515 and can be used to monitor deep aquifer water quality.

- MW-519

  Monitoring well MW-519 is an intermediate depth well, screened 20 to 25 feet bgs. Although this well provides good coverage for monitoring intermediate depths, monitoring well MW-367 is proximal and downgradient of this well and has a screen interval of 15 to 25 feet bgs. Therefore, MW-367 will sufficiently substitute for MW-519 for monitoring groundwater at this depth.

Upon completion of the Buckeye Biodiesel Project construction, Chevron will reinstall monitoring wells MW-517, MW-531, and MW-532.

SWMU 34

Similar to Buckeye's 2013 ladder track system facility alterations described above, all subsurface soil that is exposed during the installation of storage tracks and the track extension will be capped with 8 inches of sub-ballast, followed by a minimum of 6 inches of ballast beneath the new rail. This depth will be up to 13 inches on the sides of the new rail. Additional 4-inch stone will cover sloped surfaces along the new rail sections for erosion control. This stone cover will be between 6 and 8 inches thick. The sub-ballast, ballast and erosion control stone will serve as a cap (i.e., physical barrier) to limit the potential for dermal exposure to, and migration of, the underlying impacted soil.

Any soil generated during the biodiesel project upgrades, including storage tracks, track extension, piping, piping footers, heater building, and associated equipment will be handled and disposed of by Buckeye, in accordance with Buckeye procedures.

Schedule for Planned Alterations

Buckeye mobilized contractors and equipment associated with this project on March 3, 2022, and commenced activities during the week of March 7, 2022.

REFERENCES

Chevron, 2003. Full RCRA Facility Investigation (RFI) Report. November.

Chevron, 2008a. Supplemental RCRA RFI Report, prepared by SAIC. February.

Chevron, 2008b. Corrective Measures Study Report for the Main Yard, East Yard and Central Yard, prepared by URS Corporation. November.

Chevron, 2012. Final Design Report - Enhanced In Situ Bioremediation for Chlorinated Compounds, prepared by Parsons. August.

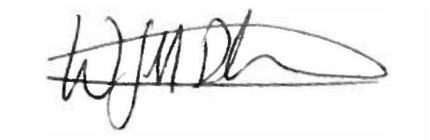
Chevron, 2018. SWMU 34 Corrective Measures Implementation Work Plan, Revision 1. October.

Chevron, 2020. Justification for NFA for Arsenic in AOC 36 Groundwater, Former Chevron Perth Amboy Facility, Perth Amboy, New Jersey. EPA ID No. NJD081982902. March 18, 2020.

USEPA, 2021. Justification for No Further Action for Arsenic in AOC 36 Groundwater, Former Chevron Perth Amboy Facility, Perth Amboy, New Jersey. EPA ID No. NJD081982902. June 29, 2021.

If you have any questions or require any additional information regarding this alteration notification, please do not hesitate to contact me at (732) 738-2226.

Sincerely,



Project Manager
Parsons

Attachments:

Figure 1	Central Yard Proposed Rail Spur Plan
Attachment 1	Buckeye Perth Amboy Terminal, L.L.C. Notice of Planned Facility Improvements at the Former Chevron Perth Amboy Facility
Attachment 2	Proposed Track Alignment Plan, Expansion for Industry Switching Operations

cc: Mr. Charlie Zielinski, NJDEP

Krista Manley, Buckeye Perth Amboy Terminal, LLC

Mr. Anthony Negri, Buckeye Perth Amboy Terminal, LLC

D-ID: 2022-008-17

FIGURE 1

CENTRAL YARD PROPOSED RAIL SPUR PLAN

N W E S

0 35 70 140 Feet

MAIN YARD
CENTRAL YARD
EAST YARD

MAURER ROAD
CRUDE ST.
PARKWAY
ALKY ST.
SHOP ST.
CIRCLE AVE.
BARBER ST.
CHEVRON AVE.
EAST YARD ST.
PENN AVE.
STOREHOUSE AVE.
STATE STREET

CEMC LIBRARY
ADMINISTRATION BUILDING

MW-35 MW-190 MW-359 MW-0037RR MW-0054R MW-0055R MW-0056R MW-360 MW-147 MW-416 MW-417 MW-418 MW-361 MW-362 MW-363 MW-364 MW-390 MW-106R MW-108 MW-110 MW-111 PZ-0016 MW-104 MW-103 MW-281 A8TP24 MW-130 TP2-017 MW-545 MW-447R MW-408R MW-295R MW-296 MW-297 MW-465 MW-146 MW-145 MW-438 MW-434R MW-439 MW-435R MW-436R TP2-018R MW-509 MW-441R MW-440 MW-105 TP2-019 MW-14 MW-486 MW-488 MW-485 MW-487 MW-484 MW-129 MW-483 MW-183 MW-528 MW-529 MW-518 MW-515 MW-517 MW-530 MW-367 MW-519 MW-514 MW-230 MW-102R MW-516 MW-531 MW-220 MW-513 MW-533 MW-369 MW-532 MW-368 MW-216 MW-219R MW-167 MW-232 MW-335 MW-217 MW-370 MW-221 MW-188 MW-168 MW-222 MW-185 MW-371 MW-372R MW-189 MW-186 MW-169R MW-225 MW-226 MW-223 MW-191 MW-224 MW-170R

LEGEND

- New Process Piping
- New Storage Track & Track Extension
- Hot Water Heating & Associated Equipment
- Area of Disturbance
- Deep Monitoring Well - Current
- Shallow Monitoring Well - Current
- EISB Injection Areas
- Ladder Track Serving as a Cap for Lead Impacts
- PRB Wall Alignment
- AOC Boundary
- PAOC Boundary
- SWMU Boundary
- Suspected TEL Burial Area
- Property Line
- Current Pipeway
- 20 ft Pipeway Buffer

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
452874-02000	4/26/2022	ADW	SL	1

Path: C:\Projects\Chevron\DNMS\Projects\Misc\Buckeye Rail Project\Figures\Buckeye Rail Project\Buckeye Rail Project.aprx

ATTACHMENT 1

BUCKEYE PERTH AMBOY TERMINAL, L.L.C.

380 Maurer Road
Perth Amboy, New Jersey

March 2, 2022

Mr. Brian Connors
Operations Lead
Portfolio Operations East
Chevron Environmental Management Company
1200 State Street
Perth Amboy, New Jersey 08861

RE: Buckeye Biodiesel Project
Buckeye Perth Amboy Terminal
Perth Amboy, New Jersey

Dear Mr. Connors:

Buckeye Perth Amboy Terminal, LLC ("Buckeye") is providing notice to Chevron of planned facility improvements at the former Chevron Perth Amboy facility as referenced above.

Project Description

This project will provide additional infrastructure to support biodiesel storage at the terminal. Activities include pump upgrades, a new hot water heating system, tank heat exchangers, electrical heat tracing, tank/piping insulation, and additional rail car staging. Through prior coordination between Buckeye and Chevron, the monitoring wells in the construction area have been abandoned by Chevron.

Project Scope

Rail Car Offloading

- Construction of two (2) additional storage tracks and a track extension to store and stage rail cars as indicated on the attached drawing – Mechanical Site Plan Rail Area
- Aboveground piping will be electrically heat traced and the supports insulated.
- An elevated 8" offload line will be installed to Central yard manifold.

Hot Water Heating System/ Electric Tank Heat Exchangers

- Two (2) new hot water heating units will be installed to support the heating load.
- A new 6,300 gallon insulated hot water expansion tank shall be installed.
- A 30'x40'x16' building will be installed to house the hot water heating units and equipment.
-

Project Schedule

Buckeye plans to mobilize contractors and equipment associated with this project to the site on March 3, 2022, and will commence activities during the week of March 7, 2022.

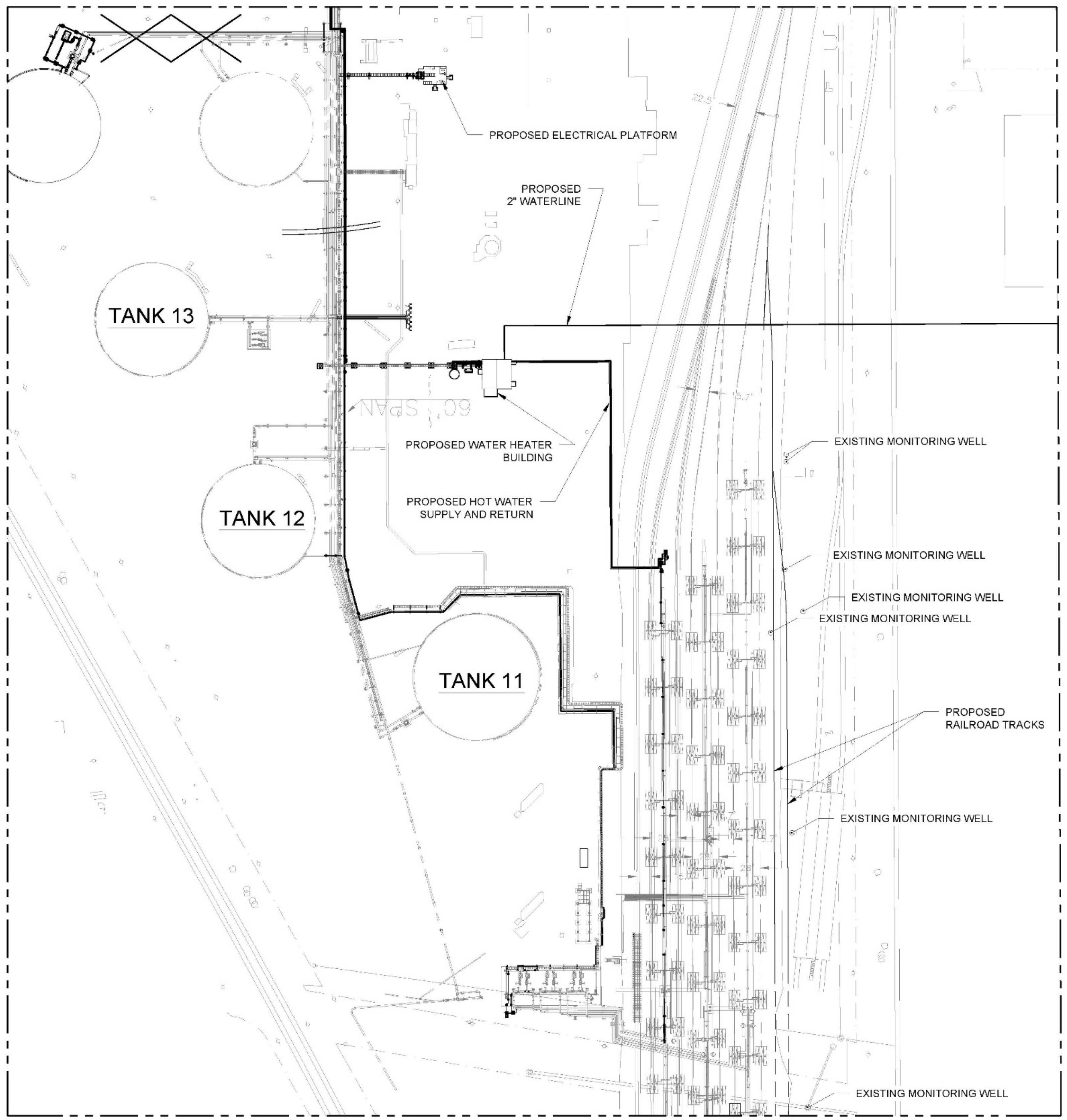
If you have any questions regarding Buckeye's comments provided herein, please contact me at 732-692-5221 or via email at nmchugh@buckeye.com.

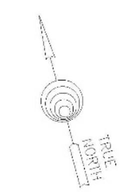
Sincerely,
Buckeye Perth Amboy Terminal, LLC

Neal McHugh
Manager, Environmental Project Support

Attachment

C: Michael Samuel, Buckeye
Rachele Smith, Buckeye
Krista Manley, Buckeye
Kevin Barrett, Buckeye
Scott Nelson, Brown & Caldwell





CAUTION

WHEN DRAWING IS NOT PLOTTED FULL-SIZE (24"x36"), USE GRAPHIC SCALE(S) ACCORDINGLY.

esdc ENGINEERING
Mechanical • Electrical • Structural • Fire Protection
New Jersey Registered Engineering Firm: 24GA28209700
4590 East 29th Street Tulsa, OK 74114
Phone: (918) 949-3670 Fax: (918) 949-3672

NO.	DESCRIPTION	BY DATE	APP'D DATE
A	ISSUED FOR REVIEW	KP 12/9/21	DP 12/9/21

NOTICE THIS DRAWING IS ISSUED:
- ☐ FOR REFERENCE
- ☒ FOR REVIEW / APPROVAL
- ☐ FOR BID
- ☐ FOR CONSTRUCTION
- ☐ AS-BUILT
- ☐ OPERATIONS APPROVED

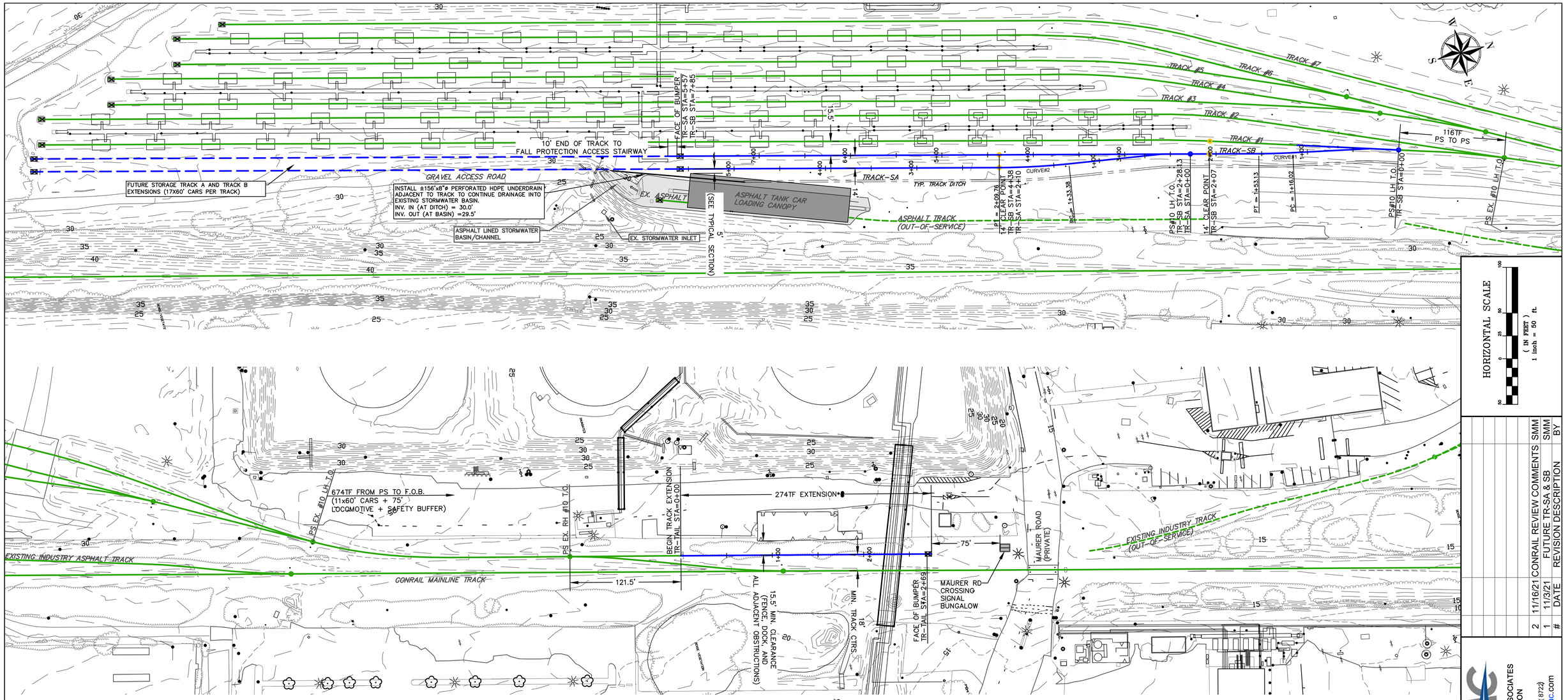
COMPANY: BUCKEYE PERTH AMBOY TERMINAL LLC
OPERATOR: BUCKEYE PARTNERS, LLC

AFE / WO NO.:	BPTPCXXXXX	DATE:	12/9/21
SCALE:	1:1	DRAWN:	KP
OLD DWG NO.:		CHECKED:	DP
REF. PAGE:		APP'D:	
PAGE:		OPS APP'D:	

FACILITY: PERTH AMBOY TERMINAL
MECHANICAL
SITE PLAN
RAIL AREA
MIDDLESEX, NEW JERSEY

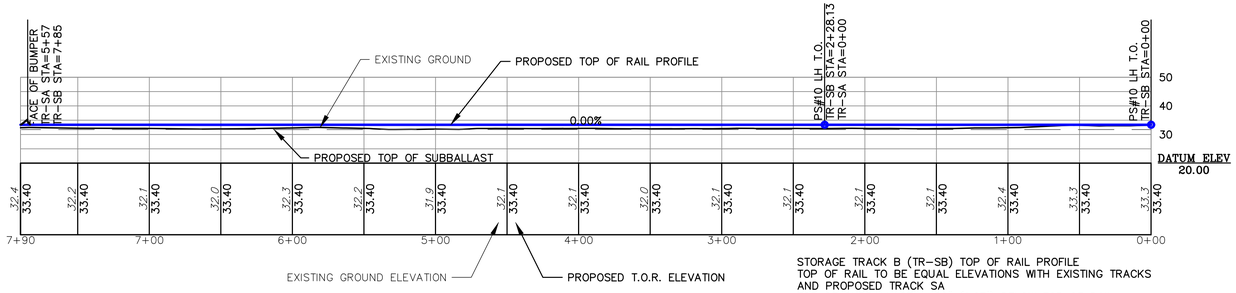
DWG. NO. BP - TPC - SP - 0000 (Rev. A)

ATTACHMENT 2

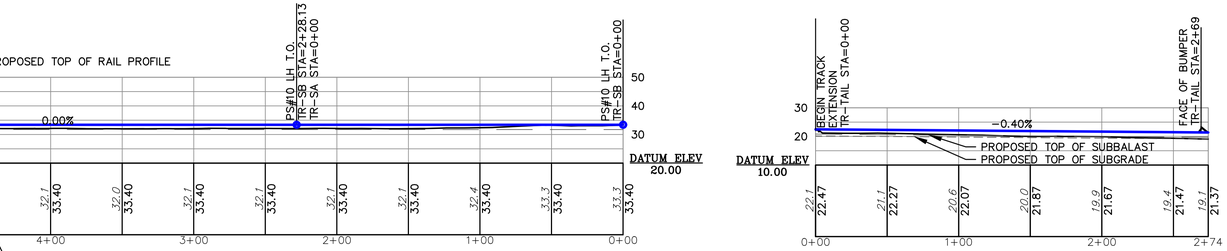


LEGEND

- EXISTING RAILROAD TRACK
- EXISTING RAILROAD TRACK (ADBANDONED/OUT OF SERVICE)
- PROPOSED TRACK CL
- FUTURE TRACK CL
- OVERHEAD ELECTRIC LINES — OE —
- UNDERGROUND UTILITY — UG —
- FENCE — x —
- DRAINAGE PIPE
- INDEX CONTOURS — 500 —
- INTERMEDIATE CONTOURS — 501 —
- EDGE OF PAVING / ROAD
- PROPERTY LINES
- TREE LINE
- R.R. MILE POST MARKER
- R.R. WHISTLE SIGN
- R.R. CROSSING SIGNALS GATES, X-BUCKS
- MANHOLE COVER
- UTILITY POLE
- CLEAR POINT / LIMIT OF STORAGE
- BUMPING POST (BUMPER)



STORAGE TRACK B (TR-SB) TOP OF RAIL PROFILE
TOP OF RAIL TO BE EQUAL ELEVATIONS WITH EXISTING TRACKS AND PROPOSED TRACK SA
TOP OF SUBBALLAST = 20" (1.67') BELOW TOP OF RAIL



PROPOSED TAIL TRACK EXTENSION
TOP OF SUBBALLAST = 20" (1.67') BELOW TOP OF RAIL
TOP OF SUBGRADE = 28" (2.3') BELOW TOP OF RAIL

TRACK CAPACITIES

TRACK #	TRACK FUNCTION	STORAGE LIMIT 1	DESCRIPTION	STORAGE LIMIT 2	DESCRIPTION	TOTAL CLEAR LENGTH	TOTAL 60' CAR CAPACITY
SA	STORAGE & SETOFF	2+10	30' PVT BUFFER	5+32	25' SAFETY BUFFER	322 TF	5 CARS
SB	STORAGE & SETOFF	2+07	30' PVT BUFFER	7+64	25' SAFETY BUFFER	557 TF	9 CARS
TAIL TRACK	INDUSTRY SHIFTING		PS TR #6 & #7		25' SAFETY BUFFER	674 TF	11 CARS + 75' LOCOMOTIVE

NOTE THAT STORAGE CAPACITY ON TRACK SB INCLUDES CARS SPOTTED BEYOND THE CLEAR POINT AND TURNOUT OF TRACK SA AND SB. THESE SPOTS ARE INTENDED FOR TEMPORARY CAR PLACEMENT DURING SHIFTING OPERATIONS ONLY.

R.R. HORIZONTAL CURVE DATA

Curve	Degree	Delta	Radius	Tangent Length	Length(Crd.)	Length(Arc)
CURVE#2	7°30'00"'	5°43'29"	764.4894'	38.22'	76.35'	76.38
CURVE#1	7°30'00"'	2°46'52"	764.4894'	18.56'	37.11'	37.11

#	DATE	REVISION DESCRIPTION	BY
2	11/16/21	CONRAIL REVIEW COMMENTS	SMM
1	11/3/21	FUTURE TR-SA & SB	SMM

THE RAILROAD ASSOCIATES CORPORATION
(717) 920-TRAC (8722)
www.railroadtrac.com

BUCKEYE PARTNERS, LP
PERTH AMBOY, NEW JERSEY

EXPANSION FOR INDUSTRY SWITCHING OPERATIONS
PROPOSED TRACK ALIGNMENT PLAN

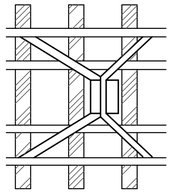
DESIGNED / DRAWN BY: S. McCORKLE
ORIGINAL DWG DATE: NOVEMBER 2, 2021
PROJ. MGR. D. GORETSKI
DRAWING ID.: 18-0810
PROJECT #: 18-0810
SHEET 1 OF 4

CONSTRUCTION NOTES:

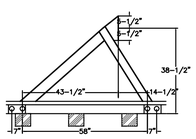
1. PROPOSED TRACK EXPANSION IS FOR INTERNAL INDUSTRY SHIFTING OPERATIONS ONLY, AND ARE NOT INTENDED TO BE ACCESSED BY CONRAIL CREWS.
2. TRACKS SA AND SB ARE NOT TO BE USED FOR PRODUCT OFFLOADING, THEREFORE, NO PRODUCT PIPING OR FALL PROTECTION WILL BE INSTALLED ADJACENT TO THESE TRACKS.
3. THE EXISTING ASPHALT OFFLOADING TRACK #1, MAINLINE TURNOUT, AND CANOPY REMAIN IN PLACE TO ALLOW POTENTIAL FUTURE REACTIVATION.
4. THE TAIL TRACK EXTENSION FOLLOWS THE PREVIOUSLY APPROVED FUTURE "LOOP TRACK" ALIGNMENT, AS SHOWN ON TRAC DRAWING (12-0175-09).
5. ALL CLEARANCES (SIDE AND OVERHEAD) MUST ADHERE TO CONRAIL STANDARD CLEARANCE PLAN 70051-G AND CONRAIL MW-4.
6. INDUSTRY TO PROVIDE GRADING, SUBBALLAST, DRAINAGE, AND SEEDING FOR ENTIRE PROJECT.
7. ALL PLANS FOR UNLOADING/LOADING STRUCTURES, EXTENSIONS OF RAILWAY DRAINAGE STRUCTURES, OR RETENTION PONDS WHICH EMPTY INTO RAILWAY DRAINAGE STRUCTURES MUST BE APPROVED BY CONRAIL PRIOR TO ANY CONSTRUCTION.
8. EVERY EFFORT HAS BEEN MADE TO SHOW AND CALL OUT ALL UTILITIES AND PIPES. HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN ON THIS PLAN.
9. ALL UTILITY LINE CROSSINGS TO ADHERE TO CONRAIL CLEARANCE REQUIREMENTS AND CONRAIL CE-8 AND CE-4 SPECIFICATIONS..
10. BONDING OF TRACKS SHALL ADHERE TO A.R.E.M.A. CHAPTER 33, PART 7.
11. INDUSTRY TURNOUTS ARE TO INCLUDE A CONRAIL STANDARD NEW CENTURY SWITCH STAND 50-A, EQUIPPED WITH ERGONOMIC BOW HANDLE, MAST SUPPORT, ALUMINUM MAST, AND REFLECTORIZED GREEN AND YELLOW TARGETS. SEE CONRAIL PLANS 73167-H, 73901-B, 73901-E, AND 73919-C.
12. THE SPIKING PATTERN IS TO BE IN ACCORDANCE WITH CONRAIL STANDARD PLAN #72051-B – SPIKING ARRANGEMENT FOR TIE PLATES.
13. EVERY 3RD TIE IS TO BE BOX ANCHORED ACCORDING TO CONRAIL MW-4. TURNOUTS ARE TO BE FULLY ANCHORED SO AS NOT TO INTERFERE WITH MOVING PARTS.
14. SUBGRADE TO BE COMPACTED TO 95% MODIFIED PROCTOR TEST (AASHTO T-180, ASTM D-1557).
15. ALL RAIL TO BE NEW OR #1 RELAY CONTROL COOLED, MIN 6" BASE (127lb OR GREATER).
16. TIE-PLATES TO BE DOUBLE SHOULDERED.
17. ALL TRACK CONSTRUCTION MUST CONFORM TO CONRAIL "INDUSTRIAL SIDETRACK CONSTRUCTION SPECIFICATIONS" DATED SEPTEMBER 13, 2006.

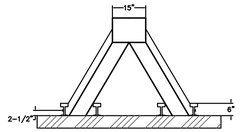
BONDING AND GROUNDING:

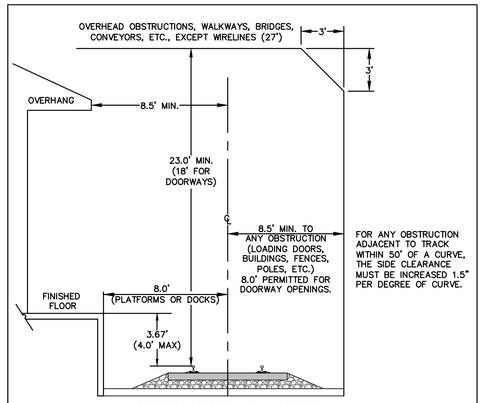
1. ALL TRACKS ARE TO BE GROUNDED AND BONDED WITHIN OFFLOADING AND STORAGE AREAS. INSULATED JOINTS ARE TO BE INSTALLED AT THE FIRST SET OF JOINTS PRECEDING THE 14' CLEAR POINT (LIMITS OF STORAGE) OR THE LIMITS OF OFFLOADING.
2. BONDING OF TRACKS SHALL ADHERE TO CONRAIL STANDARD PLAN CS-405-A AND AREMA CHAPTER 33, PART 7.
3. CROSS-BONDED GROUNDING RODS ARE TO BE 0.75" DIAMETER COPPER CLAD OR 1.0" DIAMETER ZINC-COATED STEEL, 8' LONG AND PLACED EVERY 100 TRACK FEET, BURIED TO 12" COVER BELOW TOP OF SUBGRADE.
4. INSULATED TIE PLATE TO BE USED AT SUPPORTED INSULATED JOINTS.
5. ELECTRICAL CONNECTIONS SHALL BE NOT LESS THAN ONE #4 NOR LESS THAN TWO #6 AWG STRANDED COPPER, BRONZE, OR COPPER-COVERED STEEL WIRE.
6. ALL RAIL JOINTS ARE TO BE DOUBLE BONDED WITH EITHER WELDED HEAD BONDS OR PLUG TYPE WEB BONDS. IF USING PLUG TYPE WEB BONDS, CABLE TO BE 10" LONGER THAN THE JOINT BAR, WITH PLUGS 2 ½" FROM END OF BAR.



WD, WDC BUMPING POST







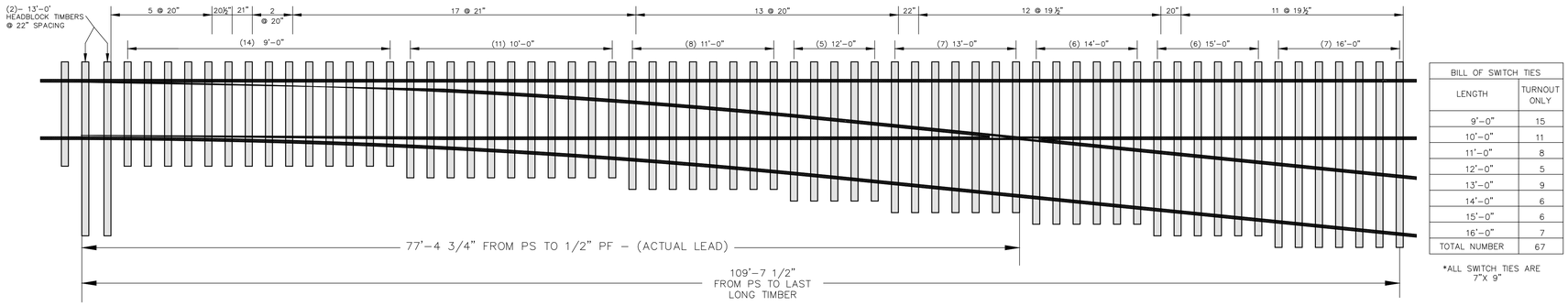
OVERHEAD & SIDE
MINIMUM REQUIRED CLEARANCES

(CONRAIL SERVED INDUSTRY TRACKS)

SEE CONRAIL PLAN 70051-G FOR COMPLETE CLEARANCE REQUIREMENTS

CONRAIL No.10 TURNOUT

(SEE CONRAIL PLAN 73209-F FOR COMPLETE DETAIL)
(NTS)

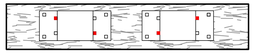


BILL OF SWITCH TIES	
LENGTH	TURNOUT ONLY
9'-0"	15
10'-0"	11
11'-0"	8
12'-0"	5
13'-0"	9
14'-0"	6
15'-0"	6
16'-0"	7
TOTAL NUMBER	67

*ALL SWITCH TIES ARE 7"X 9"

CONRAIL INDUSTRIAL TRACK SPIKING PATTERNS

(SEE PLAN 72051-B FOR DETAILS)



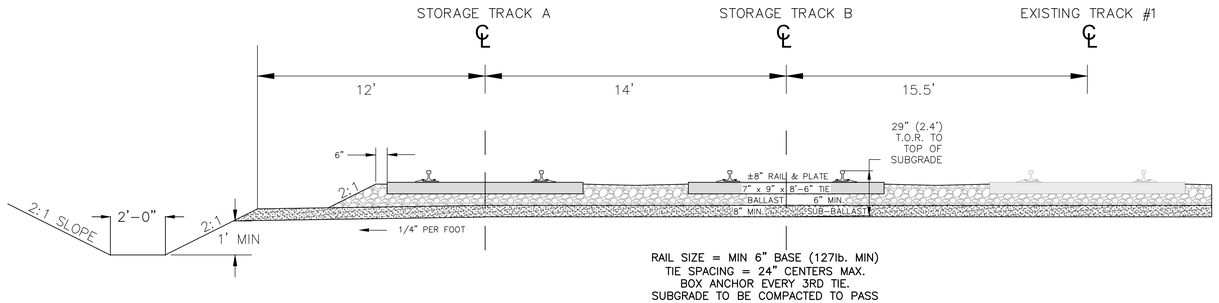
TANGENT

CURVES 1° & OVER

■ INDICATES SPIKE

TYPICAL ROADBED & BALLAST SECTION FOR CONRAIL SERVED INDUSTRY TRACKS

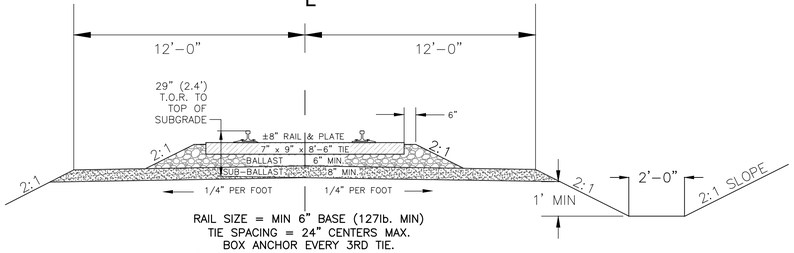
N.T.S.



RAIL SIZE = MIN 6" BASE (127lb. MIN)
TIE SPACING = 24" CENTERS MAX.
BOX ANCHOR EVERY 3RD TIE.
SUBGRADE TO BE COMPACTED TO PASS
95% MODIFIED PROCTOR TEST (ASTM D-1557)

CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CONRAIL CE373.

TYPICAL ROADBED & BALLAST SECTION FOR CONRAIL SERVED INDUSTRY TRACKS



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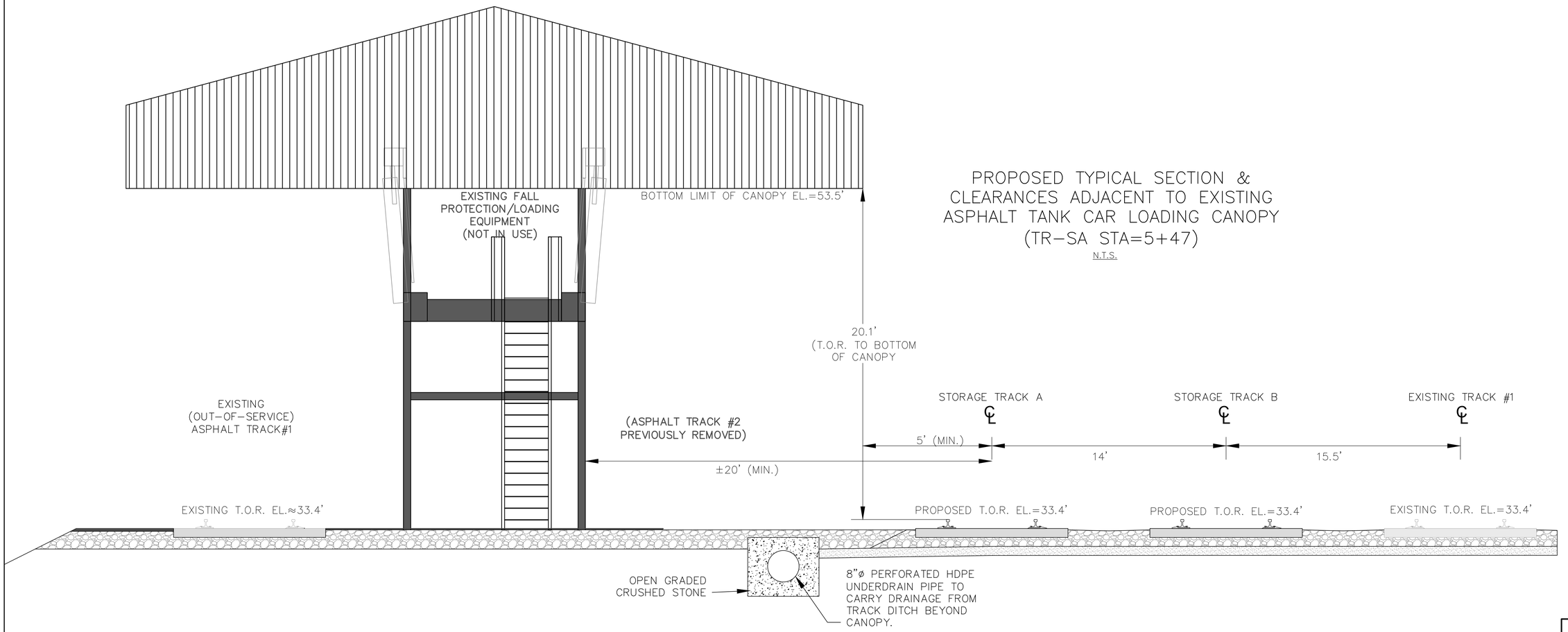
#	DATE	REVISION DESCRIPTION	BY
2	11/16/21	CONRAIL REVIEW COMMENTS	SMM
1	11/3/21	FUTURE TR-SA & SB	SMM

THE RAILROAD ASSOCIATES CORPORATION
(717) 920-TRAC (8722)
www.railroadtrac.com

BUCKEYE PARTNERS, LP
PERTH AMBOY, NEW JERSEY

EXPANSION FOR INDUSTRY SWITCHING OPERATIONS
PROPOSED TRACK ALIGNMENT PLAN

DESIGNED / DRAWN BY: S. McCORKLE
ORIGINAL DWG DATE: NOVEMBER 2, 2021
PROJ. MGR. D. GORETSKI
DRAWING ID.: 18-0810
PROJECT #: 18-0810
SHEET 2 OF 4



PROPOSED TYPICAL SECTION & CLEARANCES ADJACENT TO EXISTING ASPHALT TANK CAR LOADING CANOPY (TR-SA STA=5+47)

N.T.S.

#	DATE	REVISION DESCRIPTION	BY
2	11/16/21	CONRAIL REVIEW COMMENTS	SMM
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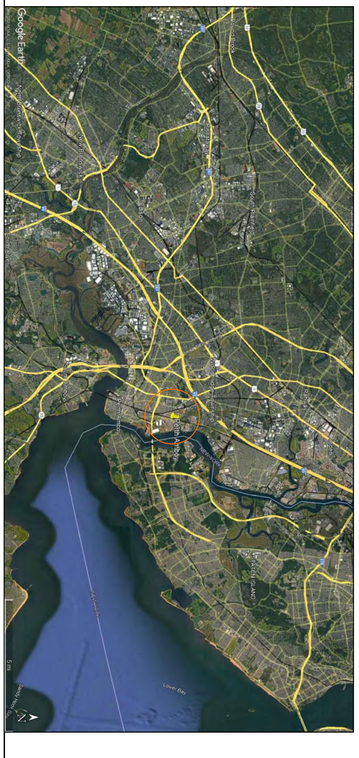
PROJECT #	18-0810	SHEET	3 OF 4



BUCKEYE PARTNERS, LP
PERTH AMBOY, NEW JERSEY

EXPANSION FOR INDUSTRY SWITCHING OPERATIONS
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PROJ. MGR. D. GORETSKI	DRAWING ID.: 18-0810
PROJECT #: 18-0810	SHEET 4 OF 4

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2	11/16/21	CONRAIL REVIEW COMMENTS	SMM
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HORIZONTAL SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.